

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 2, 2015/2016

### **BAC 3684 – SECURITY INVESTMENTS AND PORTFOLIO MANAGEMENT** ( All sections / Groups )

07 March 2016  
14.30 p.m. – 17.30 p.m.  
( 3 Hours )

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#### INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 6 pages with 4 Questions only .
2. Attempt **ALL** questions . All questions carry equal marks and the distribution of the marks for each question is given .
3. Please print all your answers in the Answer Booklet provided .

**Question 1 (25 marks)**

- a. Francisco Martin and Emma Liu are analysts at the same firm. Martin uses the cyclical indicator approach to formulate his equity market outlook, whereas Liu uses micro-valuation analysis to develop her equity market outlook. Martin and Liu have conflicting views on the current outlook for the US equity market.

Martin prepares Exhibit 1, a table of recent values of selected US cyclical indicators. He makes the following observation: "Several leading indicators suggest further deterioration in economic conditions. Based on the cyclical indicator approach, these developments are clearly unfavorable for the US equity market."

Exhibit 1  
Selected US Cyclical Indicators

Indicator	Value as of 31 December 2009	Value as of 31 March 2010
Average duration of unemployment (weeks)	18.1	18.2
Average prime rate	5.0%	5.0%
Average weekly hours of manufacturing workers	40.3	39.2
Index of consumer expectations	59.8	49.2
Labor cost per unit of output, manufacturing	124.1	125.3
Index of new private housing starts authorized by local building permits	2429	2120
Manufacturing and trade sales (in U.S. dollar billions)	989	920
Ratio of consumer installment credit outstanding to personal income	0.175	0.186
Consumer price index (inflation rate) for services	217.7	216.8
Interest rate spread, 10-year Treasury bonds less federal funds rate	2.12%	2.45%

**Required:**

- i. Identify **THREE (3)** leading cyclical indicators in Exhibit 1 that support Martin's observation regarding the US equity market.

(3 marks)

Continued .....

- ii. In Exhibit 1, determine **ONE (1)** leading cyclical indicator that does not support Martin's observation on the US equity market and justify your answer.

(2 marks)

- iii. Explain how the change in value of each of these indicators as in part (i) supports Martin's observation.

(8 marks)

- b. General Electric (GE) is an American multinational conglomerate corporation incorporated in New York. As of 2015, the company operates through the following segments: appliances, power and water, oil and gas, energy management, aviation, healthcare, transportation and capital which cater to the needs of home appliances, financial services, medical device, life sciences, pharmaceutical, automotive, software development and engineering industries. GE's common stock is currently selling for US \$42 and paying a dividend of US\$3. If the investors expect dividends to double in 8 years, what is the required rate of return for GE?

(6 marks)

- c. Industry analysis focuses on industry life cycles and industry structure. How can historical performance help the security analyst assess the future prospects for an industry?

(4 marks)

- d. The word "market" is used most often as a catch-all term to denote both the primary market and the secondary market. Differentiate between a seasoned new issue and an initial public offering.

(2 marks)

**Question 2 (25 marks)**

- a. The underlying stock of one lot is currently selling for RM114. Use the option quote information shown follow:

**Continued .....**

Option at Bursa Malaysia: Astro Malaysia Holdings Berhad	Expiration	Strike Price	Calls		Puts	
			Volume	Price (RM)	Volume	Price (RM)
	February	110	85	7.60	40	0.60
	March	110	61	8.80	22	1.55
	May	110	22	10.25	11	2.85
	August	110	3	13.05	3	4.70

- i. Suppose you buy 10 contracts of the February 110 call option. Ignoring commissions, how much will you pay?  
(2 marks)
- ii. Considering in part (i), suppose that Astro stock is selling for RM125 per share on the expiration date. How much is your options investment worth? Explain.  
(6 marks)
- iii. Suppose you buy 10 contracts of the August 110 put option. What is your maximum gain?  
(6 marks)
- iv. If Astro is selling for RM104 per share on the expiration date after considering the August 110 put option, how much is your options investment worth?  
(2 marks)

Continued .....

v. Based on parts (iii) and (iv), what is your net gain?

(2 marks)

b. Farmer Tom Jerry anticipates taking 100,000 bushels of oats to the market in three months. The current cash price for oats is RM2.15. He can sell a three-month futures contract for oats at RM2.20. He decides to sell ten 5,000- bushel futures contracts at that price or half his expected bushels. Assume that in three months when he takes the oats to market and also closes out the futures contracts, the price of oats has tumbled to RM2.03.

i. What is his total loss in value over the three months on the actual oats he produced and took to market?

(2 marks)

ii. How much did his hedge in the futures market generate in gains?

(2 marks)

iii. Based on parts (i) and (ii), what is the overall net loss for him?

(3 marks)

**Question 3 (25 marks)**

a. An efficient market is one in which new information is very rapidly processed so that securities are properly priced at any given time.

Discuss the significance of the efficient market hypothesis for the financial manager.

(8 marks)

Continued .....

- b. An advisor for Alesi Capital Management is working with a new client, Melanie Stoffer. Prior to meeting with her, the advisor asks Stoffer a series of diagnostic questions to determine whether she may have any investment behavioural biases. Assess **FOUR (4)** investments behavioural biases that will affect her portfolio decision making.
- (8 marks)
- c. Exxon has dilemma in picking shares for constructing a best portfolio. Assume ABC are all positively correlated. A fourth stock is being considered for addition to the portfolio, either stock D or stock E. Both D and E have expected returns of 12%. If stock D is positively correlated with ABC and E is negatively correlated with ABC, which stock should you recommend to Exxon for adding into the portfolio? Explain.
- (4 marks)
- d. Apple Incorporation is a technology company that designs, develops and sells consumer electronics, computer software and online services. Compute the P/E ratio of an Apple stock with a ROE of 15 percent, a book value per share of US\$5.00, and a current stock price of US\$30.00.
- (5 marks)

**Question 4 (25 marks)**

- a. In Islamic finance, explain briefly the concept of riba (interest) and how returns are made by **THREE (3)** Islamic financial instruments.
- (12 marks)
- b. The methods used to analyse securities and make investment decisions fall into two very broad categories which are fundamental analysis and technical analysis. How do technical analysts use charts to make inferences about future prices?
- (4 marks)

Continued .....

- c. A bond has a market price of RM875. The bond pays 12 percent coupon interest semiannually. The bond will mature in 7 years and will pay a face value of RM1,000.
- i. What is the yield to maturity for this bond?  
(3 marks)
  - ii. What is the yield to maturity if the bond currently has a market price of RM1,200?  
(3 marks)
  - iii. What is the intrinsic value of a newly issued bond with a 12 percent coupon rate, paid semiannually for 30 years to maturity and a RM1,000 maturity value when current market rates for comparable bonds are at 12 percent?  
(3 marks)

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